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10/671,548	09/29/2003	Akira Murakawa	018775-877	7496
21839	7590	12/11/2007	EXAMINER	
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ART UNIT		PAPER NUMBER		
		2132		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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M/N

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/671,548	MURAKAWA, AKIRA
	Examiner Laurel Lashley	Art Unit 2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09/19/2007.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13, 15-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-13, 15-27 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 September 2007 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. Applicant's amendments filed 09/19/2007 with respect to the specification and claims have been accepted and entered. The Examiner notes that claims 1 – 13, 15 - 19 and new claims 20 - 27 are pending. The Applicant has overcome the 112 rejection, thus it is withdrawn accordingly.

***Drawings***

2. The drawings were received on 09/19/2007. These drawings are acceptable.

***Information Disclosure Statement***

3. The Examiner acknowledges the previous error with regard to the objection of the information disclosure statement. The information disclosure statement (IDS) submitted on 09/29/2003 was filed before the mailing date of any final Office Action. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Response to Arguments***

4. Applicant's arguments with respect to amended claims 1 - 13, 15 – 19 and newly added claims 20 - 27 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 13 and 16 are rejected under 35 USC 102(e) as anticipated over Smetters et al. (US PGPub. No. 2004/0088548), hereafter "Smetters".

6. With regard to claim 13, Smetters discloses a computer-readable storage device storing a program ([0019]) comprising: requesting a root certificate from a device connected to the computer through the network ([0031: lines 5-7]); receiving the root certificate from the device ([0035]: lines 2-3); converting the received root certificate to a predetermined format upon receiving the root certificate ([0026]: lines 7-10, since different types of certificates can be used; it is well known in the art for any of these certificates to be converted to one standard in order to communicate with each other), and installing the converted root certificate ([0035]: line 3, storing the certificates in memory reads on client installs the converted root certificate received from the client).

7. With regard to claim 16, Smetters discloses the computer-readable storage device wherein the program further causes the computer to execute an operation of receiving a user's confirmation on the installation of the root certificate before the requesting operation (Fig. 6: item 516, user decides to use a selected public key before the certificate is created and send reads on receiving user's confirmation on the installation before the requesting step).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, 4-5, 7-8, 10, 12, 17, 20-25 are rejected under 35 USC 103(a) as anticipated by Smetters, and further in view of Benson (US. Pat. No. 6047242), hereafter "Benson".

9. With regard to claim 1, and similar claims 17 and 25 Smetters discloses a communication system in which a device and a client communicate data with each other through a network (Abstract), wherein said device comprises:

a first storage device which stores a root certificate including a public key paired with private key and being signed with a private key ([0025]: lines 6-13).

a certificate creator which creates a second certificate designating the root certificate as a certificate authority at a higher level and being signed with the private key ([0031]: lines 8-13).

a communication device which transmits the second certificate created by said certificate creator to said client; and

wherein said client comprises ([0035]: lines 1-3):

a second storage device which stores the root certificate stored in said first storage device ([0035]: line 4); and

a verifier which verifies the signature of the second certificate received from said device with the root certificate stored in said second storage device ([0042]: lines 1-6).

Smetters, however, a second certificate designating the root certificate and signed with the private key.

Benson discloses a challenge that includes the root certificates (col. 9: lines 46-47) and signed with the private key (col. 2: lines 62-63).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the method of Smetters such that the second certificate designating the root certificate and signed with the private key, as taught by Benson,

and would be motivated to provide proof and validation of a communication message between two parties (col. 4: lines 38-48).

10. With regard to claim 4, Smetters discloses the communication system (Abstract) where the client is a personal computer ([0030]: lines 1-3, laptop 12(2) reads on client is a personal computer).

11. With regard to claim 5, Smetters discloses the communication system (Abstract) where the second storage device is a hard disk drive ([0019]: lines 5-6).

12. With regard to claim 7, Smetters discloses a communication method for a communication system in which a device and a client communicate data with each other through a network (abstract),

wherein the device holds a root certificate including a public key paired with a private key and being signed with the private key ([0025]: lines 6-13);

the client installs the root certificate which is held in the device and which includes the public key ([0035]: line 3, storing the certificates in memory reads on client installs the root certificate received from the client and since the root certificate contains both private and public key; it reads on including the public key);

the device creates a second certificate ([0031]: lines 8-13);

the device sends the second certificate to the client ([0035]: lines 1-3); and the client verifies the signature of the second certificate received from the device with the installed root certificate ([0042]: lines 1-6).

Smetters, however, does not disclose a second certificate designating the root certificate and being signed with the private key.

Benson discloses a challenge that includes the root certificates (col. 9: lines 46-47) and signed with the private key (col. 2: lines 62-63).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters such that the second certificate designating the root certificates and being signed with the private key, as taught by Benson, and would be motivated to provide proof and validation of a communication message between two parties (col. 4: lines 38-48).

13. With regard to claim 8, Smetters discloses the method wherein the device further holds at least one intermediate certificate for one or more certificate authorities existing in a hierarchical order up to a root certificate authority (Fig. 7: items 30 and 40); the client installs the at least one intermediate certificate in addition to the root certificate ([0035]: line 3, storing the certificates in memory reads on client installs the root certificate received from the client); the device sends the second certificate to the client ([0031]: lines 8-13); and the client verifies the signature of the second certificate received from the device with the at least one intermediate certificate installed therein, and verifies the signature of the at least one intermediate certificate received from the device with the root certificate installed therein ([0042]: lines 1-6).

14. With regard to claim 10, Smetters discloses wherein when the client installs the root certificate, the installation is performed after the root certificate is confirmed by a user ([0031: lines 5-7, positive answer from laptop (2) indicates that it would like to participate which lead to getting the certificate and installs on it end; this reads on installation after it is confirmed by a user]).

15. With regard to claim 12, Smetters discloses the data is communicated according to the security sockets layer (SSL) protocol ([0029: lines 6-7]).

16. With regard to claim 20, Smetters disclose the communication system wherein the root certificate stored in said first storage device is stored in said second storage device prior to the

transmission of the second certificate from said communication device (see [0027]: stored in 12(1) for further processing...).

17. With regard to claim 21, Smetters discloses the communication system wherein the root certificate stored in said first storage device is stored in said second storage device prior to initiation of communication between said device and said client (see [0027]).

18. With regard to claim 22, Smetters discloses wherein said verifier is operable to verify the signature of the second certificate by decrypting the public key of the root certificate stored in said second storage device to obtain a first hash value, calculating a second hash value of the second certificate received from said device, and comparing the first and second hash values to determine if they are equal to each other (see [0041] – [0042], line 1 - 6: verify signature of certificate...).

19. With regard to claim 23, Smetters discloses wherein the device sends the second certificate to the client after the root certificate is installed in the client (see [0035]: line 1-3).

20. With regard to claim 24, Smetters discloses wherein the client installs the at least one intermediate certificate prior to receiving the second certificate from the device (see ([0035]: line 3, storing the certificates in memory reads on client installs the root certificate received from the client).

**21. Claims 2-3 are rejected under 35 USC 103(a) as unpatentable over Smetters and Benson and further in view of Debry (US Pat. No. 6918042), hereafter "Debry".**

22. With regard to claim 2, Smetters discloses a communication system and device (Abstract) but neither Smetters nor Benson discloses the device is a printer.

Debry, on the other hand discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters, and Benson such that to include the device is a printer, as taught by Debry, and would be motivated to provide print servers to which the computer system can be communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

23. With regard to claim 3, Smetters discloses the communication system (Abstract) but neither Smetters nor Benson discloses the device is a multifunctional peripheral.

Debry, on the other hand discloses the device is a multifunctional peripheral (col. 6: lines 9-14).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Benson such that to include the device is a multifunctional peripheral, as taught by Debry, and would be motivated to provide print servers to which the computer system can be communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

**24. Claims 9, 11, 15, 18-19 and 26 - 27 are rejected under 35 USC 103(a) as unpatentable over Smetters and Benson, and further in view of Debry and Slick (US PGPub. No. 2004/01109568), hereafter, "Slick".**

25. With regard to claim 9, Smetters discloses a method comprising: when the client installs the root certificate, the client requests the root certificate from the device ([0031: lines 5-7], receives the root certificate from the device ([0035]: lines 2-3), converts the received root certificate to a predetermined format when the root certificate is received ([0026]: lines 7-10, since different types of certificates can be used; it is well known in the art for any of these certificates to be converted to one standard in order to communicate with each other), and

installs the converted root certificate ([0035]: line 3, storing the certificates in memory reads on client installs the converted root certificate received from the client).

Neither Smetters nor Benson discloses the device where the device is a printer.

Debry, on the other hand, discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Benson such that to include the device is a printer, as taught by Debry, and would be motivated to provide print servers to which the computer system can be communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

However, Smetters, Benson nor Debry discloses a printer driver from the device is installed in the client device.

Slick discloses a printer driver from the device is installed in the client ([0057]: lines 1-4).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters, Benson and Debry to include the installation of a printer driver from the device, as taught by Slick, and would be motivated to provide the private key through a printer driver ([0005]: lines 8-11).

26. With regard to claims 11, and similar claims 18-19 and 26 - 27, Smetters discloses method/device where the client installs the root certificate after the printer driver from the device is installed in the client ([0035]: line 3, storing the certificates in memory reads on client installs the root certificate received from the client. Furthermore, it is well known in the art for a device to install a driver of that device prior to communicate with it as presented below) but neither Smetters nor Benson discloses the device is a printer, and install the root certificate after a printer driver is installed from the device.

Debry, on the other hand, discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Benson such that to include the device that has print function, as taught by Debry, and would be motivated to provide print servers to which the computer system can be communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

However, Smetters, Benson nor Debry discloses a printer driver is installed from the device.

Slick discloses a printer driver is installed from the device ([0057]: lines 1-4, further notes that in order communication with the printer; the printer driver needs to be active before any communication).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Debry such that to include the installation of a printer driver from the device, as taught by Slick and would be motivated to provide the public key through a printer driver ([0005]: lines 8-11).

**27. Claim 15 is rejected under 35 USC 103(a) as unpatentable over Smetters in view of Debry, and further in view of Slick (US PGPub. No. 2004/01109568), hereafter, "Slick".**

28. With regard to claim 15, Smetters discloses the device according to claim 13, but does not disclose an operation of installing a printer driver before the requesting operation.

Debry, on the other hand, discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters to include a print driver, as taught by Debry, and would be motivated to provide print servers to which the computer system can be

communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

However, neither Smetters nor Debry discloses a printer driver is installed.

Slick discloses a printer driver is installed ([0057]: lines 1-4, further notes that in order communication with the printer; the printer driver needs to be active before any communication).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Debry such that to include the installation of a printer driver from the device, as taught by Slick and would be motivated to provide the public key through a printer driver ([0005]: lines 8-11).

**29. Claim 6 is rejected under 35 USC 103(a) as unpatentable over Smetters and Benson, and further in view of Vogel et al. (US Pat. No. 6816900), hereafter "Vogel".**

30. With regard to claim 6, Smetters discloses the communication system (Abstract) but neither Smetters, nor Benson discloses the second storage device is a read-only memory.

Vogel discloses the second storage device is a read-only memory (Fig. 2: item 150).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to modify the methods of Smetters and Benson such that to include a read-only memory for the second storage device in the communication system, as taught by Vogel, and would be motivated to provide a more user-friendly way in which root certificates at the client computer can be managed (col. 2: lines 8-10).

### ***Conclusion***

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laurel Lashley whose telephone number is 571-272-0693. The examiner can normally be reached on Monday - Thursday, alt Fridays btw 7:30 am & 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron, Jr. can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laurel Lashley  
Examiner  
Art Unit 2132

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04 December 2007

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